DOCUMENT RESUME

ED 164 799 08 CE 018 225

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TITLE Writer's Guide to Publication Development. How to Get Your Publication into an Information Retrieval System.
INSTITUTION Ohio State Univ., Columbus. National Center for Research in Vocational Education.
SPONS AGENCY Bureau of Occupational and Adult Education (DHEW/OE), Washington, D.C.
PUB DATE Feb 78
CONTRACT 300-75-0141
GRANT 498AH50001
NOTE 35p.

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Bibliographies; Content Analysis; Copyrights; Curriculum Guides; Federal Aid; Federal Legislation; *Guidelines; Information Dissemination; *Information Retrieval; *Information Systems; Instructional Materials; Layout (Publications); Models; Printing; *Publications; Reprography; State Aid; *Writing

ABSTRACT

This handbook is a set of guidelines to assist authors in preparing publications to meet two sets of criteria: requirements of federal and state government sponsors and requirements of information retrieval systems. The guidelines include both a set of written instructions and a physical model, and are sufficiently flexible to apply to research reports, curriculum materials, bibliographies, handbooks, guides, and other types of publications. Divided into four sections, the handbook covers (1) elements of a publication, describing mandatory and optional publication parts (such as front matter, funding information, abstract, table of contents, lists of illustrations and tables, foreword, preface and acknowledgements, appendix, glossary, abbreviations, bibliography, index, and cover) and listing the order in which they should appear; (2) content requirements, discussing substance and organization in general, and giving a checklist for the development of curriculum materials; (3) physical characteristics, dealing with layout and reproducibility standards for ink, type size, paper weight, photographs and illustrations, and printing; and (4) copyright considerations, delineating the purpose and procedure of copyrighting as well as changes in the 1978 copyright law. (ELG)

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WRITER'S GUIDE TO PUBLICATION DEVELOPMENT

How to get your publication into an information retrieval system

written by

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February 1978

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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- Generating knowledge through research
- Developing educational programs and products
- Evaluating individual program needs and outcomes
- Installing educational programs and products
- Operating information systems and services
- Conducting leadership development and training programs

FUNDING INFORMATION

Project Title:	Abstracts of Instructional and Research Materials in Vocational and Technical Education (AIM/ARM).
Contract Number:	300-75-0141
Project Number:	498AH50001
Educational Act Under Which the Funds were Administered:	Vocational Education Amendments of 1968, P.L. 90-576
Source of Contract:	Department of Health, Education, and Welfare United States Office of Education Bureau of Occupational and Adult Education Washington, D.C.
Project Officer:	Lawrence Braaten
Contractor:	The National Center for Research in Vocational Education The Ohio State University Columbus, Ohio
Project Director	Joel Magisos
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ABSTRACT

This handbook is a set of guidelines to aid authors in developing publications that will meet both the criteria of federal and state government sponsors and criteria for inclusion in information retrieval systems. It is a written set of instructions and a model. The guidelines are sufficiently flexible to apply to research reports, curriculum materials, bibliographies, handbooks, guides, and other types of publications. The handbook includes step-by-step instructions on format, important considerations for the physical appearance of the publication, and a brief discussion of content requirements. A short section on copyright considerations is also included.

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FOREWORD

Preparing and disseminating reports, curriculum materials and other publications is a major task for researchers, curriculum specialists, teachers and administrators. The National Center for Research in Vocational Education endeavors to assist in this task.

With this mission in mind, the staff of the AIM/ARM Project, under contract with the U.S. Office of Education, Bureau of Occupational and Adult Education, prepared these publication guidelines to help authors meet both criteria of federal and state government sponsors and requirements for listing in information retrieval systems.

The National Center hopes this publication will serve not only as a valuable reference tool but also as a mechanism through which materials can be more widely disseminated.

Robert E. Taylor, Executive Director
The National Center for Research
in Vocational Education

PREFACE

This handbook was developed to assist authors in preparing publications to meet two sets of criteria: requirements of federal and state government sponsors and requirements of information retrieval systems. For both sets of criteria, content must be substantive, adequately detailed and explained in an orderly, logical fashion.

In addition to content requirements, information retrieval systems often require that the physical appearance of the publication meets established reproducibility standards. These standards are especially important to the growing number of authors whose main method of dissemination is through an information retrieval system.

These publication guidelines are intended both as a set of written instructions and as a physical model. To achieve status as a model, the handbook includes samples of every publication element discussed. When the book describes an element that does not directly apply to this publication (e.g., list of illustrations, list of tables, etc.), a "placeholder" page was nonetheless included to complete the model.

Content, organization and format of publications vary depending on type and use. The instructions in this manual, therefore, are meant to adjust to the publication under development. They are flexible guidelines, not iron-clad rules. Not every element will apply to every publication. It is hoped that authors will view the handbook as a broad guide to aid the development of a wide range of written materials that meet the two sets of criteria described above.

Thanks goes to Marla Peterson, Ted Brandhorst, Jack Wilson and Elaine Eigeman for the helpful comments. And special thanks also goes to Ohio State Law Professor Peter M. Gerhart for legal guidance on the section on Copyright Considerations. Joan McQueeney Mitric edited the publication.

INTRODUCTION

The purpose of *Writer's Guide* is to alert authors to important considerations in the preparation of publications. Besides having standard general requirements for the preparation of project reports and publications,[1] many federal and state agencies require that publications be submitted to information retrieval systems for broader dissemination. Publications resulting from large and small projects and individual efforts often do not reach large audiences. A practical and economical alternative to commercial distribution of such materials is to enter them into information retrieval systems.

Most information retrieval systems select materials for inclusion in computerized data bases. Many of these systems regularly publish indexes announcing materials and some offer microfiche and paper copy reproductions of listed materials. It is with this last group that this handbook is mainly concerned.

While substantive content is fairly standard criteria among all information retrieval systems, those offering microfiche and hard copy reproductions also require that the physical format of publications meet established reproduction standards. In addition to criteria of content and physical appearance, all information retrieval systems require specific and accurate bibliographic information in order to properly record each new acquisition.

As a model for authors to follow in the development of publications, *Writer's Guide* has four major sections. The first, *Elements of a Publication,* describes the mandatory and optional parts of a publication and lists the order in which they should appear. The section on *Content Requirements* discusses substance and organization. The third section, *Physical Characteristics,* deals with reproduction and layout standards. The final section, *Copyright Considerations*, briefly describes the why and how of copyrighting and alerts authors to changes in the 1978 copyright law.

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[1] The term "publications" as used in this handbook refers to research reports, curriculum materials (e.g., student texts, teachers' and students' guides, workbooks, etc.), administrators' guides, bibliographies, handbooks, guidelines and any other written materials to which these guidelines are applicable.

ELEMENTS OF A PUBLICATION

This section describes various parts of a publication. It is divided into two sections: front matter and back matter. Front matter consists of materials that identify and introduce the publication. Back matter consists of references and materials that supplement the main text. Not all of these elements are required for every publication. Note "mandatory" and "optional" labels.

Front Matter

Cover (Optional)

There are no restrictions for the cover of a publication. It can be simple and direct or it can be as imaginative as the author wishes it to be. However, the cover is the best place for imaginative colors and graphics. The cover very often is not filmed for microfiche and paper copies (see the section on physical characteristics) and will, therefore, not affect the reproducible nature of the publication. Although some type of cover is recommended, it is not essential.

Inside Front Cover (Optional)

The inside front cover (if a cover is used) may remain blank. Some organizations use the inside front cover to display their mission statement or standard information concerning the organization producing the publication.

Title Page (Mandatory)

The title page supplies libraries and information retrieval systems with information used to identify each publication they acquire. The only information that should be on the title page is the title, author(s), institutional author(s), and the date of publication. **Where** this information is placed on the page is almost as important as **what** the information is.

Title. A title may be as long or short as the author(s) wish(es) to make it. However, a title that is too long can be confusing or just plain boring; one that is too short may not convey desired information. It is best to use a title of moderate length and then further explain in a subtitle. In this case, the main title is in upper case letters, and the subtitle in upper and lower case. Research report titles must include the qualifications of quarterly, interim, or final report and the dates for which the report applies. Do not confuse reporting dates with the date of publication. The subtitle should be placed near enough to the main title to clearly indicate that it is part of the title proper. The entire title should appear in the upper third to fourth of the page depending upon its length and the number of authors which must appear.

Author(s). The individual(s) receiving credit for the publication should be the next information listed. Those who receive credit for a publication often act in varying capacities depending upon the publication type. There is an order of precedence in recording those responsible for a publication (i.e., an author will be listed over an editor) and only one entry (e.g., author, editor, compiler, etc.) will be recorded. Therefore, it is necessary to indicate clearly who this person(s) shall be. Examples include: written by, edited by, compiled by, submitted by, etc. As a general rule, project directors are not considered authors unless there is some indication that they wrote, edited, compiled, or submitted the publication. This identification is to be included on the title page.

An author's affiliation may be included on the title page. However, when an affiliation is included (i.e., university or college, organization or foundation, business or industry, school system, etc.), it must be listed directly beneath the author's name and should not include an address. Such an affiliation is to be presented as the author's location and not as an institutional source responsible for the publication (see below). The author(s) should be placed near the center of the title page.

Institutional author(s). The institutional author is the organizational source of a publication. Universities, colleges, schools, school districts, research organizations, business, industry, or any corporate body is an institutional author if it is **responsible** for the production or issuance of a publication. The institutional author is not to be confused with the address(es) of the individual author(s). For example, the author of a set of guidelines is employed at the University of Nebraska. However, the author was commissioned to write the guidelines by the Ohio State University which is responsible for issuing them. The Ohio State University is the institutional author and the University of Nebraska merely the location or address of the individual author.

Confusion most often arises in the case of conference papers and dissertations where usually there is no institutional author. A commercial or university press publishing a manuscript also should not be confused with the institutional author. Such publishers are only the institutional authors if they are **responsible** for the preparation of the publication (e.g., The University of Chicago Press is both the institutional author and publisher of *A Manual of Style*).

To insure that proper credit is given, the format used for the institutional author should include the largest and smallest organizational units responsible for the publication. An example is Ohio State University, College of Education, Department of Vocational Education. The largest and smallest units are Ohio State University, Department of Vocational Education. Other intermediate divisions may be included but are not necessary.

There is, of course, an exception to this. In the case of very large organizations which contain many subdivisions (The Department of Health, Education, and Welfare, for instance), it is important to list intermediate units. When such an organization is the institutional author, it is important to list the office, bureau, branch, division, etc. It would be useless to list the Department of Health, Education, and Welfare, Research Division due to the number of different research divisions that exist within this organization.

Place the institutional author within the bottom third to fourth of the title page.

Date of publication. Placed just inside the botton margin, the date should be as complete as possible. In the event that month and date are not available, the year will be sufficient. Bear in mind, however, that many publications with similar titles are published in a single year. The more accurate the date, the easier it is to identify a publication as unique.

Funding Information (Mandatory)

Organizations providing funds for the production of a publication should be acknowledged properly. Project or grant sponsors often require such credit be given. Clearly and accurately crediting the funding source also assists information retrieval systems in recording a publication.

What is a funding source? The funding source or sponsor agency is the institution, other than the institutional author, which supported the work and ultimate production of a publication by providing funds via contract or grant. Funding organizations include government agencies, private foundations, business or industrial organizations, or any corporate body that funds the work.[2] In the past, funding information has been included on the title page, preface, acknowledgements, back cover, scattered throughout the publication, or any combination thereof. The information that has been listed about a funding source has been unclear and incomplete. It is time to gather this information together into a standard form.

What should be included. This standard form should consist of a separate page listing the project title, the contract or grant number, the project number, the educational act under which the funds were administered (e.g., Part C of the Vocational Education Amendments of 1968), the funding source, the project officer(s) appointed by the funding source, the institution receiving the funds, the project director, and any other information pertinent to the funding of the work. Not all of this information will apply in every case—but when it does apply it should be included.

There are many methods of retrieving a publication once it has been included in an information retrieval system. Accurate funding information provides a straightforward method (project, grant, and contract numbers are unique). One other thought to bear in mind: listing the funding information records that the publication is a result of a particular endeavor and no other.[3]

Format. The same criteria used to list the institutional author apply to the funding source [see the section on institutional author(s)]. The most specific information needs to be listed so that the sponsor receives proper credit. Project, grant, and contract numbers

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[2] Educational Resources Information Center, National Institute of Education, Washington, D.C. *ERIC Processing Manual: Rules and Guidelines for the Acquisition, Selection, and Technical Processing of Documents and Journal Articles by the Various Components of the ERIC Network.* (July 1974), p. 169.

[3] For projects that produce multiple publications from one contract or grant, refer to the section containing information about the use of the inside back cover as a place for listing related publications.

are usually (but not always) alpha-numeric. No matter what their form, they are to be listed in full. This separate page containing funding information should be clearly identified with the words, **FUNDING INFORMATION, CONTRACT INFORMATION,** or **GRANT INFORMATION**, as applicable and placed directly behind the title page. Many funding organizations require that a disclaimer statement and a statement regarding non-discriminatory practices be included. This page provides a good place for such statements.

The idea of listing the funding information on a separate page is somewhat new. However, it is already in use by some organizations. The Indiana Research Coordinating Unit includes such a page in the first of their Technical Report Series publications (see Appendix A).

In the case of funding information, the more thorough the information, the better. **Where** the information is placed on the page is not nearly as important as **what** that information is.

Abstract (Mandatory)

An abstract is an essential part of every publication. It is a brief, accurate objective summary which presents the main points of the publication and allows readers to survey contents of an article quickly. For reports, the abstract should include a statement of the problem and the procedures, findings, and conclusions. Normally, an abstract is typed on a separate page using block form without paragraph indentations.[4] Recommended lengths vary, but in no case should an abstract exceed one typed page or 200 words. The writing style should parallel that of the main text.

Some publications seem self-explanatory (e.g., bibliographies, student materials, teachers' guides, etc.) and therefore without need for an abstract. This is not the case. *All kinds of materials benefit from an abstract, especially those scheduled for inclusion in information retrieval systems.* An abstract of a bibliography for example, gives the user a brief summary of the types of materials included and their arrangement. Such a summary immediately tells teachers and students what to expect from a publication **before** they order it photocopied. An abstract that is informative, succinct and quickly understood resembles an effective sales pitch: it greatly increases the potential audience.

Materials submitted to information retrieval systems should be abstracted. An abstract that highlights the main points of the publication increases the likelihood that the abstracts will reflect these main points. Remember: an abstract should describe the actual publication and not the project work that produced the publication.

When submitting a series or several related volumes for publication in information retrieval systems the rule of thumb is to include an individual abstract for each work while making reference to the series title. Each subwork will be indexed separately, but it will be helpful to the reader to know that it is part of a series.

The abstract should be placed directly behind the funding information.

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[4] American Psychological Association. *Publication Manual* (2nd edition; Garamond/ Pridemark Press, Inc., 1975), p. 85.

Table of Contents (Mandatory)

The Table of Contents page follows the abstract. Formerly, all preliminary materials were excluded from the table of contents (e.g., foreword, preface, and acknowledgements). Current standards advocate the inclusion of such materials in the contents.[5] The title and beginning page number of each section of the publication should be included. Publications that consist of individually-authored papers, sections, chapters, etc. should list the name of the author for each.

The style and format of the contents page is left to the author's discretion. Choose a style that is straight-forward and clear. Any of the style manuals listed in Appendix B will be helpful. But once a style is chosen, be consistent in its use!

List of Illustrations (Optional)

Maps, charts, figures, or illustrations used in a publication should be listed on a separate page. The list of illustrations page immediately follows the contents page. The style and type of this page should match that of the table of contents.

Illustration titles included on the list need not correspond exactly with the titles on the illustration themselves. If they are lengthy, they may be shortened. Also, in publications using only a few illustrations or a great many, a listing is not essential.

List of Tables (Optional)

A separate page listing tables used throughout the publication should be placed after the list of illustrations page. The style and type should correspond to the contents and illustrations pages. Lengthy titles may again be shortened. If only a few tables are used or the publication is mainly tabular material, a listing may not be necessary.

Foreword (Optional)

A foreword is a statement made by someone other than the author of the publication. The foreword is set in the same style and type as the text, and its author's name appears at the end. The foreword author's affiliation may also be given.[6]

Preface and Acknowledgements (Optional)

The preface is written by the author of the publication and need be signed only if there will be some doubt as to who wrote it (e.g., a publication with several authors).

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[5] The University of Chicago Press. *A Manual of Style* (12th edition; Chicago: The University of Chicago Press, 1969), p. 10.

[6] Ibid., p. 13.

Otherwise, it is assumed to be the work of the author. The preface contains the author's reasons for undertaking the work, a discussion of the methods used if it is pertinent to the readers' understanding, acknowledgements, and permission for using previously published materials. If the acknowledgements are lengthy or if the preface consists entirely of acknowledgements, they should be placed on a separate page entitled "ACKNOWLEDGEMENTS."

The preface should not contain background materials pertinent to the publication. Such material should be included in an introduction to the main text.[7]

Back Matter

There are a few absolute "rights" and "wrongs" in the development of a publication. Much depends on the preferences of the author and editor or the style manual used. This is true for the arrangement of the materials placed at the back of a publication. The order of materials in this section are suggestions and not commands.

Appendix (Optional)

An appendix section can be very useful but is not a required part of every publication. Materials contained in the appendix(es) should be related to the text and should be included only if they provide further clarification to the reader. An appendix should not be used as a catch-all for materials that the author was unable to fit into the text. Examples of appended materials include explanations too long for footnotes, lengthy tables or charts, texts of documents or laws, research instruments discussed in the text, or any related materials that would be disruptive to the main text. Omit news clips, memos and project correspondence because these often show up in program descriptions.

When more than one appendix is used, each should be given a title as well as a number designation: Appendix 1, Appendix 2 or Appendix A, Appendix B. These numeric or alphabetic designations and the titles are to be included in the table of contents. The appendix should be placed directly after the main text.

Glossary (Optional)

When a glossary is included, it should appear after the appendix. A glossary is useful when the publication contains many words that are not in the common vocabulary. Such words may be technical in nature or specific to a particular field of endeavor. Listing these words in a glossary will allow a greater number of people in diverse fields of study to use and understand a publication. The glossary should be arranged alphabetically and should provide a brief, clear definition for each term.

Abbreviations (Optional)

A publication that contains many abbreviations, symbols, or acronyms should include a listing of these terms. It is common practice to list the proper name for which an

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[7] Ibid.

unfamiliar acronym stands the first time it appears in the text followed by the acronym in parentheses [e.g., Department of Health, Education and Welfare (HEW)]. Thereafter, only the acronym is used. However, including a separate listing of all abbreviations, symbols, and acronyms will provide the reader with a single reference source.

Terms included in this listing should be arranged alphabetically and should provide: (1) the proper name for which the acronym or abbreviation stands, or (2) a brief, clear explanation of the symbol. The abbreviations page should be placed behind the glossary.

Bibliography (Optional)

A bibliography **shall** be included **whenever** the author has referred to other works to aid in his/her writing. The form of the bibliography may vary—any of the style manuals listed in Appendix B will provide approved formats. Once a style is chosen, use it consistently. Incomplete reference citations are unacceptable. When footnotes or reference citations listing specific page numbers have not been included in the text, page numbers should be given in the bibliography.

Index (Optional)

An index serves as a reader's guide and facilitates reference work. The inclusion of one or more indexes is left to the discretion of the author. Publications may be indexed in different ways, including: (1) a single, alphabetical listing of topics and proper names and the page number(s) on which the information can be found, or (2) separate indexes listing subjects, authors, and organizations and the page number(s) on which they appear.

Inside Back Cover (Optional)

It is not necessary to include any information on the inside back cover (if a cover is used). However, for projects that produce several products or for publications that are part of a series, the inside back cover should list the names of these related products. This listing will aid the user in finding works that have been published as a result of a project or series effort. Including the date or estimated date of publication will facilitate locating the publication or alert users to the date when another can be expected. This listing also provides a record of the project's work.

The inside back cover also can provide a good place for listing ordering or subscription information. When this is done, the ordering address, price of the publication, and required forms of payment should be included.

CONTENT REQUIREMENTS

The Body of the Publication

The content of all publications should be as complete as possible. The reader will find a work to be the most useful when sufficient information, explanation and detail are provided. Federal and state government sponsors require that project reports include detailed information with respect to the problem, procedures, findings, conclusions and recommendations of the funded work. Publications that lack substance or wide applicability usually are rejected by information retrieval systems. The nature and purpose of the publication will determine the kind and extent of information included.

Research Reports

The essential elements of any report include: (1) an introduction stating the problem, its significance and the need for the study; (2) methods research; (3) results; (4) conclusions and implications; and (5) recommendations.

The introduction should provide the reader with a general orientation to the report and include a broad discussion of the problem, a review of related literature and any limitations to the study. The section describing methods and procedures should identify and discuss survey or evaluative instruments used in the work and samples of these instruments included in the appendix. The findings and results of the study should be supported by the data presented. Results should be described carefully as much of the value of the research rests on this section. The conclusions and implications that are drawn from the research must be in accordance with the results. They should be clearly and simply stated and highlight what was and was not accomplished. Recommendations when made, should center on possible uses for the research results with respect to educational practice or future research.

Curriculum Materials

The subject matter, format and organization of curriculum materials varies with the target audience. There are, however, certain elements that are necessary if the materials are to prove valuable. These include: (1) a description of the learner group, (2) objectives, and (3) evaluative materials.

Curriculum materials should indicate clearly the age and/or developmental level of the intended user group and should be designed to fulfill the needs of this group. Objectives should be simply and adequately stated with sufficient materials and methods provided to fulfill these objectives. Adequate evaluative measures should be included either in the form of testing materials or in the instructions for gauging student progress and understanding.

Two important considerations in the development of materials are appropriateness in regard to the intended learner group and the presence of bias towards individuals or groups with respect to age, race, sex and exceptionality. Below is a checklist of criteria that can be useful when developing curriculum materials. The checklist is not intended to be comprehensive, rather it is designed as a useful and usable guide to developing materials.

1. Are the materials appropriate to the age of the students?
2. Are the materials appropriate to the developmental level of the students?
3. Is the content of the materials accurate?
4. Is the coverage of the topic thorough?
5. Is the content of the materials current?
6. Will the materials appeal to student interests?
7. Does the content reflect planned goals and objectives?
8. What is the format and organization of the materials?
9. Are the graphics attractive?
10. Is the language uncluttered, clear and appropriate to student understanding?
11. What will the lifespan of the materials be?
12. What will the cost of the materials be?
13. What will be the advantages and disadvantages of using these materials?
14. What types of equipment will be necessary for use with these materials?
15. Are the materials designed for use by individuals, groups, or both?
16. Are the materials designed to be used easily by the student?
17. Are the suggested teaching techniques clearly identified and defined?
18. Are there evaluative materials or measures included in the materials?
19. Do the materials contain language that is racist or biased?
20. Are races or ethnic groups presented in stereotypic roles or occupations, menial or serving tasks, or as incompetent or confused?
21. Do the graphics support the ideas presented in 20 above?
22. Do the graphics present current styles of dress of races or ethnic groups?

23. How is the language and behavior of races and ethnic groups handled—are there any indications of inadequacy?

24. How are older people depicted—are they competent or helpless?

25. Do the materials represent people who are exceptional?

26. Are people with exceptionalities limited to the physically handicapped?

27. Do the materials include such exceptionalities as giftedness, behavioral problems, hearing impairments, learning disabilities, mental retardation, multiple handicaps, neurological problems, physical handicaps, and serious emotional problems?

28. How are the people with exceptionalities depicted—as active and involved with others or isolated and helpless?

29. Do the materials represent any form of tokenism with respect to age, race, sex, or exceptionality?

30. Are the materials free from the value judgments in language and graphics with respect to all individuals and groups?

31. Is the worth and uniqueness of all people emphasized rather than the differences that exist.[8]

Organization of the Content

Publication type determines the content organization. For example, a research report or a student textbook is usually divided into chapters; a bibliography is divided into sections organized by subject area. The first page of each chapter or section should begin on a right-hand page. Headings for subtopics within a chapter or section must stand out in the text. Any of the style manuals listed in Appendix B can provide acceptable guidelines for organizing the major divisions and subdivisions of a work.

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[8] Jezierski, Kathleen, Comp. *Collage: A Collection of Career Education Resources.* (Springfield, Illinois: State Board of Education, Office of Education, 1977), pp. 8-10.

PHYSICAL CHARACTERISTICS

Publications that are selected for inclusion in an information retrieval system must meet certain criteria. Foremost is that of substantive content. The report must say something worth saying and say it well. This requirement is standard in all information retrieval systems and is discussed in the content section of these guidelines. Papers submitted to information retrieval systems that offer microfiche and paper copies of publications they announce, must also meet certain physical requirements.

Publications offered in microfiche and paper copy undergo several generations of reproduction. To prepare a publication for microfiche, the original publication (the copy received by the information retrieval system) is filmed to produce a master, from this master a print master is made, and it is from this print master that the microfiche is made. When paper copy is requested, the microfiche is processed on an enlarging machine which produces a paper copy of the publication.

If the original copy of the publication is of poor quality, each successive generation will be poorer still. For this reason, publications that are of marginal physical quality often are not accepted by an information retrieval system even though the quality of the content may be high. There is no use announcing to the public that copies of a publication are available if the copy they receive will not be usable.

The two factors which most affect the physical quality of a publication are (1) the reproducible nature of the type size and face, the color of the paper and ink, the weight and size of the paper, photographs and illustrations, and the methods used to print or reproduce the publication, and (2) the layout of materials with respect to "white space," pagination, and margins.

Reproducibility

Type

Type size that is smaller than 6-point is difficult to read and does not reproduce well. Publications that are printed with type that is smaller than 6-point (even when the original is of good quality) and then undergo several generations of reproduction will not produce usable copies. Information retrieval systems generally do not accept publications that have used smaller than 6-point type.

Choose a typeface that is clear and easy to read. The occasional use of italics is fine for highlighting a main point but avoid using italics for an entire publication. Italics are difficult to read and generally do not reproduce well. The publication should be examined for type that is faint, smudged, or broken. Faint type usually is the result of an old typewriter ribbon or a poor duplication job. Smudged type occurs when characters are printed over one another or from a spread or diffused image around the characters. Both result in a confused character image. Broken type results from the consistent dropping of portions of characters (i.e., the left or right side, the top, or the descenders).[9]

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[9] Educational Resources Information Center, National Institute of Education, Washington, D.C. *ERIC Processing Manual: Rules and Guidelines for the Acquisition, Selection, and Technical Processing of Documents and Journal Articles by the Various Components of the ERIC Network.* (July 1974), p. 95.

The curriculum guide for drafting occupations is one of five guides written and field tested in a project to develop statewide articulated competency-based curricula in selected vocational education programs. Contents of the guide are divided into eight curriculum levels, and students should be able to enter the program at the appropriate level of their experience. The first four levels cover basic drafting skills, the fifth is a general knowledge level covering overlapping areas that each specific field has in common, and the last three levels are advanced levels in the fields of: Architecture, Mapping, Piping, Mechanical-Machinery, and Structural Steel Detailing. Related technical subjects and mathematics are offered at all levels. Each level is divided into teaching units and contains a brief description of the unit, performance objectives, and criterion-referenced measures. Following each of the curriculum levels is a list of job opportunities with their corresponding Dictionary of Occupational Titles code number. A three-level strength of materials curriculum is also included along with a bibliography.

A Sample of 6-point Type

Color of Paper and Ink

Colored paper and ink will not reproduce in their original color and will affect the quality of reproduction. Publications that use color to convey meaning will generally be announced by an information system but will not be made available in microfiche and paper copy. Instances where color is used to convey meaning include paint samples, color spectrums, textile swatches, or graphs using more than one color. Graphs and other materials that depend on various shades of one color generally do not reproduce with the desired color differentiation. Publications that are printed using diazo or spirit duplicator techniques (e.g., Ozalid-blue-line process, ditto, etc.) or colored inks (e.g., blue, green, orange, or yellow) run a high risk of poor reproducibility and thus rejection by an information system.

The use of black ink on very dark colors of paper (e.g., dark red, dark blue, dark brown, dark green, purple, etc.) or tone-on-tone printing (e.g., brown ink on brown paper) can result in publications that will not reproduce.[10] Papers that are medium shades of color can present difficulties. If there are doubts about the reproducible nature of a paper color, a few simple tests on a photocopying machine should provide the answer. What is required is a distinct, easily read copy that will stand several generations of reproduction. Of course, the most secure choice is light colored paper and black ink.

Weight and Size of Paper

The weight of paper used for a publication only presents a problem when printing appears on both sides of a page. If the page is translucent (e.g., onionskin paper), the print tends to "bleed" through during reproduction. When the text of a publication is printed on both sides of a page, no less than 20-pound paper should be used. Twentypound paper is the weight of most photocopy paper. If there is doubt as to the weight of paper being used for a publication, inquiries should be made prior to printing or duplication.

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[10] Ibid., p. 96.

The ideal paper is 8½" x 11". This is standard letter-size paper. Small sized paper will not present reproduction problems; larger paper will. Pages larger than 8½" x 11" must be filmed on more than one frame. When this is done, users often encounter difficulties in reading microfiche or paper copy reproductions of a publication.

Photographs and Illustrations

Photographs do not reproduce well unless they have been especially screened for filming during initial publication development. Publications that depend heavily on photographs to transmit information will usually be announced by an information retrieval system but will not be made available in microfiche or paper copy reproductions. If photographs are scattered throughout the text but the information they portray is explained fully in the narrative, the publication will generally be accepted. Remember, however, that the cost of a publication in microfiche or paper copy is based on the number of pages. Users are often dissatisfied when they must pay for photographs they cannot use. When photographs are grouped together in one section and are not essential to the content of the publication, they often are removed by the information retrieval system before processing.[11]

As described in the section on colored ink, illustrations that depend on color to convey meaning do not reproduce the desired variations. Illustrations that are simple and distinct make the best reproductions.

Printing

There are many methods of printing and reproduction that can be used to produce good copy. It is not necessary to commercially print a publication. All that is required by information retrieval systems is a clear, clean distinct copy of the publication. A good photocopy meets all of the necessary requirements. However, there are some methods of reproduction, cited in the section on colored inks, that generally produce unacceptable copy (e.g., Ozalid-blue-line process, ditto, etc.). Regardless of the method of printing or reproduction, the copy of the publication that is sent to the information retrieval system should be checked page-by-page to determine that each page meets the criteria for reproduction. A few minutes spent in checking a publication before it is submitted will help ensure that it is not rejected merely because it will not reproduce well.

Layout

How a publication is arranged or "laid out" will affect the ease with which it can be used and understood, reflect positively or negatively on the organizational capabilities of the author, and at times affect the reproducible nature of the publication. Arrange the text so there is sufficient "white space" on the page. Print should not be crammed together to give the effect of a maximum amount of information in the minimum amount of space.

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[11] Ibid., pp. 96-97.

Each section and subsection should be preceded by headings, and pages should be numbered sequentially at the bottom of each page using arabic numerals. Publications that do not have numbered pages are difficult to use and almost impossible to cite as references.

The standard for margins is an inch to an inch and a half (1"—1½") at the top, bottom, right, and left. Binding processes make a left margin of 1½" mandatory. When publications are prepared for filming, the bindings are cutoff automatically. If the left margin is too small, some of the print could be cut off and the microfiche and paper copy reproductions affected.

COPYRIGHT CONSIDERATIONS

Authors should copyright their work because this gives them the exclusive right to sell, distribute, reproduce, perform, display, translate and revise their work and prohibits others from doing the same without permission.

New copyright legislation effective January 1, 1978, generated confusion in some circles. The best protection policy is still *to include a notice of copyright in any published work or in a document submitted to an information retrieval system.* Should an author inadvertantly forget a copyright notice "on a relatively few copies" of the document, however, the new law offers copyright protection if the copyright is registered within five years.

This means that the author can protect himself/herself only against FUTURE copyright infringements. Documents distributed without copyright notice are not protected and may be used by others without regard to author preference.

A notice of copyright is written by the author and includes three elements: (1) "the word 'copyright,' the abbreviation 'copr.,' or the symbol © "; (2) "the name of the copyright owner(s)"; and (3) "the year date of first publication. Example: © John Doe 1975." [12] The copyright notice should be typed by the author and prominently displayed in the front matter of the book. Traditionally, it is placed on the page following the title page.

In works done for hire or under contract or government sponsorship, the copyright belongs exlusively to the employers or sponsors unless terms of the grant define the author's rights. Agreement should be reached with the project sponsor or employer on limitations of the copyright and distribution of royalties.

Registration of a copyright with the Copyright Office is further evidence of copyright and *is necessary if you are going to sue someone for infringement.* Registration costs $10.

Authors must avoid infringement upon the copyrights of others. While "fair use" conventions given authors some leeway to quote the work of others, it is safest to seek and obtain WRITTEN permission of the author or copyright holder. Authors who publish or otherwise distribute a publication must take responsibility for copyright infringement or plagiarism.

Authors who want their publications included in an information retrieval system should include a letter when they submit the article which either grants or withholds permission for the document to be reproduced in microfiche, paper copy or both. This should be done even when the publication is not copyrighted.

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[12] As cited in Library of Congress Copyright Office. *General Information on Copyright: Circular I.* Washington, D.C.: U.S. Government Printing Office, 1975, p. 5.

APPENDIX A

Sample from Indiana RCU Technical Report Series

GRANT INFORMATION

Grantor

Indiana State Board of Vocational and Technical Education
401 Illinois Building, 17 West Market Street
Indianapolis, Indiana 46204

Project Number: 47-83-C*

Grantee

Purdue Research Foundation
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*This report has been published in *The Journal of Vocational Education Research*, 1976, *1*, (3), pp. 3-14.

**Formerly of Purdue University

APPENDIX B

Suggested References

American Psychological Association. *Publication Manual of the American Psychological Association.* Second Edition. Washington, D.C.: American Psychological Association, 1974.

Educational Resources Information Center, National Institute of Education, Washington, D.C. *ERIC Processing Manual: Rules and Guidelines for the Acquisition, Selection, and Technical Processing of Documents and Journal Articles by the Various Components of the ERIC Network*, July 1974.

Turabian, Kate L. *A Manual for Writers of Term Papers, Theses, and Dissertations.* Third Edition, Revised. Chicago: The University of Chicago Press, 1967.

United States Government Printing Office. *Style Manual.* Washington, D.C.: United States Government Printing Office, 1973.

The University of Chicago Press. *A Manual of Style.* 12th Edition. Chicago: The University of Chicago Press, 1969.

GLOSSARY

Back Matter	materials placed at the end of a publication including appendix, glossary, bibliography, etc.
Cold-Type	photographically produced copy that does not utilize metal, hot type
Diazo	a photocopying machine which produces cold-type proofs
Ditto	a duplicating machine that uses analyne dye to produce copies
Front Matter	materials placed at the beginning of a publication including title page, contents, preface, etc.
Institutional Author	the organization or corporate source responsible for preparing or issuing a publication
Ozalid-blue-line Process	the trade name of a machine that uses an amonia process to produce copy printed in blue
Tone-on-tone Printing	using the same colors of ink and paper; the ink in a somewhat darker shade

ABBREVIATIONS*

Abbreviation, Acronym, or Symbol listed in alphabetical order	Proper name or explanation of symbol

*Although no abbreviations, acronyms, or symbols were included in the text, this "place-holder" page was included to complete the model and provide the user with an example.

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